Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_ Per.: \_\_\_\_\_\_\_\_

**5.5 Similar Triangle Proofs**

Reasons we will use in proofs:

1. If two angles of one triangle are congruent to two angles of another triangle, then the

triangles are similar. (**AA Similarity Postulate**)

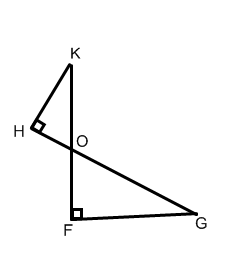
2. **Corresponding sides of similar triangles are in proportion.**

3. **Cross-product property.**

-**---------------------------------------------------------------------------------------------------------------**

Example Given: Angles H and F are right angles.

Prove: *HK GO = FG KO*



Statements Reasons

1. 1. Given

2. 2.

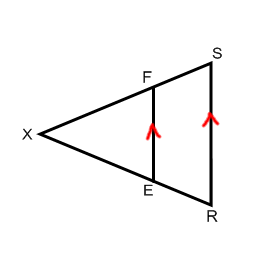
3. 3.

4. *HKO* ~ *FGO* 4.

5. 5.

6. *HK GO = FG KO* 6.

1. Given: *EF* ∥ *RS*

Prove: 

Statements Reasons

1. 1.

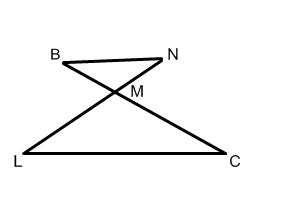
2. 2.

3. 3.

4. 4. AA Similarity Postulate

5. 5.

2. Given: *BN* ∥ *LC*

Prove: *NM CM = LM BM* 

Statements Reasons

1. 1.

2. 2.

3. 3.

4. 4. AA Similarity Postulate

5. 5. Corresponding sides of similar triangles are in

proportion.

6. 6.